



**UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
Region X**

**Subject:** **POLREP #4**  
**Week 3 - Removal Action Progress**  
**Treoil Industries Biorefinery**

**Ferndale, WA**  
**Latitude: 48.8789186 Longitude: -122.7107528**

**To:** Jeffrey Fowlow, EPA Region 10 (POLREP List)  
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Raman Iyer, Washington Department of Ecology  
Robert Hildebrand, NPFC (POLREP List)  
Bill Angel, Whatcom County Health Department  
Brian Milchak, U.S. Department of the Interior  
Jesse Stark, NOAA

**From:** Brooks Stanfield, On Scene Coordinator

**Date:** 4/1/2017

**Reporting Period:** 3/27 - 4/1

## 1. Introduction

### 1.1 Background

<b>Site Number:</b>	10PZ	<b>Contract Number:</b>	
<b>D.O. Number:</b>		<b>Action Memo Date:</b>	
<b>Response Authority:</b>	OPA	<b>Response Type:</b>	Emergency
<b>Response Lead:</b>	EPA	<b>Incident Category:</b>	Removal Action
<b>NPL Status:</b>	Non NPL	<b>Operable Unit:</b>	
<b>Mobilization Date:</b>	3/13/2017	<b>Start Date:</b>	3/13/2017
<b>Demob Date:</b>		<b>Completion Date:</b>	
<b>CERCLIS ID:</b>	WAN 001002088	<b>RCRIS ID:</b>	
<b>ERNS No.:</b>		<b>State Notification:</b>	
<b>FPN#:</b>	E17004	<b>Reimbursable Account #:</b>	Z0ES

#### 1.1.1 Incident Category

Emergency response. CERCLA and OPA concerns.

#### 1.1.2 Site Description

Treoil Industries is an approximately 34-acre industrial property. The site is currently reported as not in operation however historically has been used for tall oil processing, as a biodiesel refinery, metal fabrications, and other small scale miscellaneous industrial operations.

##### 1.1.2.1 Location

4242 Aldergrove Road - Ferndale (Whatcom County), Washington

The site is approximately 1.8 miles from the shoreline of the Strait of Georgia, a navigable water of the United States.

##### 1.1.2.2 Description of Threat

EPA received initial reports from a site visit conducted by Washington Department of Ecology and Whatcom County Health Department, which outlined a deterioration of safety and environmental conditions on the property including but not limited to: hazardous substances that had released from containers or threatened to release, improper storage and labeling of chemical containers, oil being stored within failing secondary containment or no containment at all, and a complete lack of site security.

##### 1.1.3 Preliminary Removal Assessment/Removal Site Inspection Results

Most assessment tasks were completed prior to Week 3 and it is expected few new waste issues will be identified going forward. See previous PolReps for preliminary assessment results preceding Week 3.

During Week 3, EPA and its response contractors made the following new discoveries:

- On 3/25 response contractors discovered three new open drums of sandy grit material containing up to 40% lead. Lead levels were determined using an X-Ray Fluorescence (XRF) field screening instrument.
- Two open drums of demolition debris. Material suspected as ACM was sampled and laboratory results confirmed it as ACM. The ACM was not initially visible in the drums because it had been covered by a steel drum lid, a layer of plastic, and a few inches of clean sand/gravel as a cap. The drums were not labeled as having ACM and it is not clear why the material was stored this way or how it got on site.
- One 6,000 gallon AST (Tank #18 in EPA's AST inventory) was found with an open top and was visibly leaking an oily water substance. The tank had been used as a receptacle for the disposal of 53 drums of tall oil and sludge materials. Because of the open top, the tank was partially filled with rain

water, which had mixed with tall oil from leaking drums and was leaking to bare soil from a hole in its sidewall several feet up from the base of the tank.

- Miscellaneous previously hidden containers of hazardous chemicals including one 50 lb. sack tri-sodium phosphate (corrosive).

## 2. Current Activities

### 2.1 Operations Section

#### 2.1.1 Narrative

Refer to PolRep #1.

#### 2.1.2 Response Actions to Date

Refer to PolReps #s 1-3 for activities prior to 4/3/17

##### CERCLA Chemicals

Atul Deshmane of Whole Energy completed collection of glycerin crude from tanks 25 and 26 for an estimated final total of 6,750 gallons of this material that were recycled through his facility.

Approximately 430 drums and containers of CERCLA chemicals found in warehouses were overpacked and staged earlier in the week. Overpacked materials were shipped to a licensed RCRA disposal facility on 3/31.

##### Asbestos Containing Material (ACM)

Following the discovery of two drums of suspected ACM hidden by sand and gravel capping material, samples were collected and sent for laboratory analysis. The presence of ACM was confirmed by these tests and the drums were contained and staged with the rest of the ACM in anticipation of pickup by a licensed asbestos abatement contractor on 4/5.

##### Tall Oil in Drums, Totes, and ASTs

EPA disposal contractors made the first shipment of liquid tall oil for recycling on 3/31. A vac truck transloaded approximately 3,100 gallons of tall oil out of 275-gallon totes. EPA crewmembers had been using selected totes as interim containers for oil which had been consolidated from numerous leaking drums, totes, and other containers found inside and outside of buildings. The completion of this task is expected to take place on 4/3 along with the first efforts at recovering liquid tall oil out of abandoned ASTs.

Consolidation and solidification of tall oil liquids and sludge in drums and totes continued throughout the week along with continued shipment of solidified tall oil sludge. The level of effort needed to complete this task increased significantly with the recovery of 53 new drums in Tank 18 and the thousands of gallons of contaminated water, oil, and sludge that had accumulated in that open top tank with the discarded drums. Because of the added work of having to clean liquids off of drums before they can be crushed and disposed of, it is anticipated that this task will be accomplished on 4/5.

EPA contractors continued sealing openings on abandoned ASTs to avoid further accumulation of oily rainwater inside and to prevent the risk of discharge from these tanks.

##### Contaminated Soils and Sediment

Sediment samples that had been collected from the concrete trenches located in the two warehouse buildings indicated that sediment from inside the smaller north-south warehouse (designated Warehouse B for this operation) would need to be disposed of as hazardous waste due to concentrations of lead. Water and sediments from the trench were pumped and excavated and packed in drums for disposal. A pipe was observed to be leading from the end point of Warehouse B's trench extending west outside the building creating potential concerns for the spread of contaminants found in the trench sediment. After some investigation crews could not determine the exact route this pipe takes after leaving the building (or whether it leaves the building at all).

Sediments from the two exterior sumps on the north end of Warehouse B as well as sediments from the trench in Warehouse A will be removed and prepared for disposal in the coming week.

#### 2.1.3 Enforcement Activities, Identity of Potentially Responsible Parties (PRPs)

Refer to PolRep #1.

#### 2.1.4 Progress Metrics

ASTs inventoried: 50 (100%)

Containers inventoried 717 (100%)

Buildings cleared of CERCLA chemicals: 3 (100%)

Buildings cleared of tall oil: 2 (66%)

Gallons of liquid phase tall oil recovered from abandoned drums/totes: 3,100 (56%)

Gallons of tall oil recovered from seven targeted ASTs: 0 (0%)

Gallons of oily water recovered from sumps and targeted ASTs: 0 (0%)

<b><i>Waste Stream</i></b>	<b><i>Medium</i></b>	<b><i>Quantity</i></b>	<b><i>Manifest #</i></b>	<b><i>Recycling</i></b>	<b><i>Disposal</i></b>
Glycerin crude	Liquid (gal)	6,750		X	
Tall oil	Liquid (gal)	30,000		X	
Tall oil sludge	Solid (cy)	165			X
ACM	Solid (cy)	8			X
Oily water	Liquid (gal)	10,000			X
CERCLA Chemicals	Containers	430			X

Contaminated sediment	Drums	2			X
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## 2.2 Planning Section

### 2.2.1 Anticipated Activities

#### 2.2.1.1 Planned Response Activities

In the forthcoming week EPA crews anticipate completion of the following key tasks:

##### Monday (4/3):

- Completion of recovery of liquid tall oil from bulk containers using vac truck. Initiation of recovery of tall oil from ASTs.
- Continued decontamination of Tank 18 and solidification of sludge from abandoned drums found inside. Once clean, this tank will be cleaned, cut, and hauled offsite for final cleaning and recycling.
- Clean out of the two exterior sumps north of Warehouse B and photo document any pipes entering or leaving these features to assist with future investigations.
- Remove the remaining six partially submerged drums abandoned in the large secondary containment.
- Cut, crush, and dispose of empty abandoned drums.
- Haul away two roll-off boxes of solidified tall oil sludge.
- Receive delivery of rock for re-grading of access driveways.

##### Tuesday (4/4):

- Continued solidification of tall oil sludge recovered from drums in Tank 18.
- Recovery of oily water from sumps and ASTs using vac truck. This water will be hauled away for treatment.
- Decontaminate floor of the large east-west warehouse (Warehouse A) and begin decontamination of equipment.

##### Wednesday (4/5):

- Meet with State and County agency partners for closing site walk and begin planning transition to non-emergency phase operations.
- Remove sediments from trench drains in Warehouse A and dispose.
- Ship ACM off for disposal using licensed asbestos contractor.
- Continued recovery of tall oil from targeted ASTs using vac truck.
- Haul away two roll-off boxes of solidified tall oil sludge.
- Begin re-grading access driveways.
- Continue decontamination of equipment.

##### Thursday (4/6):

- Haul away two roll-off boxes of solidified tall oil sludge.
- Install straw wattle and sorbent boom BMPs in four targeted areas.
- Complete re-grading of access driveways.
- Clean Aldergrove Road with street sweeper of any residual dirt or mud that has been tracked off site from vehicles.

##### Friday (4/7):

- Demobilize site.

#### 2.2.1.2 Next Steps

Establish a transition plan outlining actions completed, information that will be made available to the property owner, partner agencies, and affected tribes, and potential issues that will need to be investigated as part of future non-emergency actions.

#### 2.2.2 Issues

Site personnel have worked three weeks of six consecutive 12-hour days. Several members of the team have been impacted with flu-like illnesses. The intensity of work in Week 3 was particularly high. As a result work crews were given Saturday afternoon and Sunday off to rest in order to ensure the final week of work is completed with no accidents, injuries, or other health issues. A private security officer will be on site during all hours when site operations are shut down.

Wet winter conditions have made safely accessing several ASTs located in wetland areas challenging and unsafe with heavy equipment. EPA and its contractors have established a plan for recovering liquid phase tall oil from these tanks in the summer months during drier conditions. EPA crews will install a temporary containment and create a monitoring plan to prevent a discharge of oil to surface water in the months leading up to those final tall oil removal operations.

EPA has received phone calls from parties interested in the future of the property for industrial use.

## 2.3 Logistics Section

No information available at this time.

## 2.4 Finance Section

### 2.4.1 Narrative

As of 3/27/17:

CERCLA cost ceiling is \$255,300.

OPA cost ceiling is \$900,000

These are subject to change as more of the unknown conditions are assessed to a greater degree.

## **2.5 Other Command Staff**

### **2.5.1 Safety Officer**

Valeriy Bizyayev - START  
Eric Lindeman - START

### **2.5.2 Liaison Officer**

TBD

### **2.5.3 Information Officer**

Suzanne Skadowski - EPA  
Bill Dunbar - EPA

## **3. Participating Entities**

### **3.1 Unified Command**

### **3.2 Cooperating Agencies**

Washington Department of Ecology  
Washington Department of Archeology and Historic Preservation  
Washington State Attorney General  
Whatcom County Health Department  
US Department of Interior  
National Oceanic and Atmospheric Administration  
US Coast Guard - National Pollution Funds Center

### **3.3. Cooperating tribes**

Lummi Nation

## **4. Personnel On Site**

Since PolRep # 3

EPA OSCs - 1  
EPA Public Information Officer - 1  
Washington Department of Ecology Hazardous Waste Program - 2  
EPA ERRS Contractors - 8  
EPA START Contractors - 3  
\*EPA START Contractor's Health and Safety Officer conducted a routine safety audit on 3/31

News Media - 4  
Reporters from the local newspaper, the Bellingham Herald, and Seattle NBC affiliate - King5 News - were on site Friday 3/31 to gather information and conduct interviews for news reports.

## **5. Definition of Terms**

ACM - Asbestos Containing Material

AST - Aboveground Storage Tank

CERCLA - Comprehensive Environmental Response Compensation and Liability Act

DOT - US Department of Transportation

Ecology - Washington Department of Ecology

FirstStep- FirstStep method of hazard class categorization of unknown chemicals for purposes of identification, storage, transportation, and disposal.

OPA - Oil Pollution Act

PPE - Personal Protective Equipment

PPM - Parts Per Million

RCRA - Resource Conservation and Recovery Act - Federal statute governing the transportation, storage, and disposal of solid waste and hazardous waste.

Roll-off box - A transportable dumpster-like container capable of holding 20 cubic yards

Tall oil - also called "liquid rosin" or tallol, is a viscous yellow-black odorous liquid obtained as a by-product of the Kraft process of wood pulp manufacture when pulping mainly coniferous trees. It is treated as an oil under the federal Oil Pollution Act.

XRF - X-ray Fluorescence - a field instrument used to detect toxic metals and provide an estimate of concentrations in soil materials such as soil.

## **6. Additional sources of information**

### **6.1 Internet location of additional information/report**

EPA Emergency Response incident webpage for Treoil:  
[response.epa.gov/treoil](https://response.epa.gov/treoil)

Washington Department of Ecology Toxic Cleanup Program webpage for Treoil:  
<https://fortress.wa.gov/ecy/gsp/Sitepage.aspx?csid=950>

Bellingham Herald media reports on EPA response at Treoil:  
<http://www.bellinghamherald.com/news/local/article142102174.html>  
<http://www.bellinghamherald.com/news/local/article142051639.html>

King 5 media report on EPA response at Treoil:  
<http://www.king5.com/news/local/epa-oil-refinery-clean-up/427405667>

#### **6.2 Reporting Schedule**

The next PolRep is anticipated by Monday 4/10/17.

#### **7. Situational Reference Materials**

Maps and site diagrams forthcoming in future reports.